

WHAT IS CLAIMED IS:

1. A tunneling tool, to form a subdural pathway between a first incision and a second incision comprising:

5 a shaft having a first end and second end located at opposite ends of the shaft;

a tunneling tip located at the first end of the shaft, wherein the tunneling tip is inserted through the first incision to tunnel the subdural pathway between the first incision and the second incision;

10 a handle at the second end of the shaft operable to guide the tunneling tip from the first incision to the second incision; and

a tapered slot in the shaft proximate to the tunneling tip, wherein the tapered slot further comprises:

15 a wide opening at located opposite from the tunneling tip; and

tapered sides that taper inwardly towards the tunneling tip, wherein the wide opening receives a line and the tapered sides secure the line to the tunneling tool, and wherein the tunneling tool is withdrawn along the subdural pathway to locate the line along the subdural pathway.

2. The tunneling tool of Claim 1, wherein the handle  
25 comprises a bent portion of the shaft.

3. The tunneling tool of Claim 1, further comprising a connector operable to couple the handle to the shaft.

4. The tunneling tool of Claim 1, further comprising a tube concentrically counted about the shaft, wherein the connector acts as a stop for the tube.

5. The tunneling tool of Claim 4, wherein the tube remains located along the subdural pathway to protect the catheter, when the tunneling tool is withdrawn from the subdural pathway.

6. The tunneling tool of Claim 1, wherein:  
the first incision is located proximate to a terminal region; and  
the second incision is located proximate to a treatment region.

7. The tunneling tool of Claim 1, wherein:  
the second incision is located proximate to a terminal region; and  
the first incision is located proximate to a treatment region.

8. The tunneling tool of Claim 7, wherein the line comprises a catheter operable to deliver medication to the treatment region.

9. The tunneling tool of Claim 7, wherein the line comprises a catheter operable to drain the treatment region.

10. The tunneling tool of Claim 7, wherein the line comprises a lead operable to deliver electrical signals to neuromodulate tissues from a signal generator and to electrodes proximate to the treatment region.

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11. The tunneling tool of Claim 10, wherein the lead is implanted proximate to neural tissue proximate to the treatment region and the signal generator is implanted in the terminal region.

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12. A method to form a subdural pathway between a first incision and a second incision for an implantable line, comprising:

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inserting a tunneling tip of a tunneling tool into a first incision;

guiding the tunneling tool subdurally from the first incision to the second incision to form the subdural pathway;

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securing the line to the tunneling tool with a tapered slot proximate to the tunneling tip that pinches the line; and

backing the tunneling tool out from the first incision along the subdural pathway to lay the implantable line along the subdural pathway.

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13. The method of Claim 12, wherein the tunneling tool comprises:

a shaft having a first end and second end located at opposite ends of the shaft, wherein the tunneling tip is located at the first end of the shaft;  
a handle at the second end of the shaft operable to guide the tunneling tip from the first incision to the second incision; and

wherein the tapered slot further comprises:

a wide opening at located opposite from the tunneling tip; and  
tapered sides that taper inwardly towards the tunneling tip, wherein the wide opening receives the implantable line and the tapered sides secure the line to the tunneling tool.

14. The method of Claim 13, wherein the handle comprises a bent portion of the shaft.

15. The method of Claim 13, wherein the tunneling tool further comprises a tube concentrically mounted about the shaft, wherein the tube remains located along the subdural pathway to protect the implantable line.

16. The method of Claim 12, wherein:  
the first incision is located proximate to a terminal region; and  
the second incision is located proximate to a treatment region.

17. The method of Claim 16, wherein the implantable line comprises a catheter operable to deliver medication to the treatment region.

5        18. The method of Claim 16, wherein the implantable line comprises a catheter operable to drain the treatment region.

10        19. The method of Claim 16, wherein the implantable line comprises a lead operable to deliver electrical signals to neuromodulate tissues from a signal generator and to electrodes proximate to the treatment region.

15        20. The method of Claim 19, wherein the lead is implanted proximate to neural tissue proximate to the treatment region and the signal generator is implanted in the terminal region.

20        21. A neuromodulation therapy system comprising:  
at least one implantable stimulation lead to deliver  
electrical energy to proximately positioned tissue,  
wherein the implantable stimulation lead is located  
subdurally with a tunneling tool; and  
an implantable pulse generator coupled to the at least one  
stimulation lead, wherein the implantable pulse  
generator is operable to deliver electrical energy to  
25        the at least one stimulation lead in response to at  
least one control signal.

22. The neuromodulation therapy system of Claim 21, wherein the tunneling tool comprises:

a shaft having a first end and second end located at opposite ends of the shaft;

5 a tunneling tip located at the first end of the shaft, wherein the tunneling tip is inserted through the first incision to tunnel the subdural pathway between the first incision and the second incision;

10 a handle at the second end of the shaft operable to guide the tunneling tip from the first incision to the second incision; and

a tapered slot in the shaft proximate to the tunneling tip, wherein the tapered slot further comprises:

15 a wide opening at located opposite from the tunneling tip; and

tapered sides that taper inwardly towards the tunneling tip, wherein the wide opening receives the at least one implantable stimulation lead and the tapered sides secure the at least one  
20 implantable stimulation lead to the tunneling tool, and wherein the tunneling tool is withdrawn along the subdural pathway to locate the at least one implantable stimulation lead along the subdural pathway.

25 23. The neuromodulation therapy system of Claim 22, wherein the handle comprises a bent portion of the shaft.

24. The neuromodulation therapy system of Claim 22,  
30 further comprising a connector operable to couple the handle to the shaft.

25. The neuromodulation therapy system of Claim 22,  
further comprising a tube concentrically counted about the  
shaft, wherein the connector acts as a stop for the tube.

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26. The neuromodulation therapy system of Claim 25,  
wherein the tube remains located along the subdural pathway to  
protect the catheter, when the tunneling tool is withdrawn from  
the subdural pathway.

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27. The neuromodulation therapy system of Claim 22,  
wherein:

the first incision is located proximate to a terminal  
region; and

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the second incision is located proximate to a treatment  
region.